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Vanita Mani

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
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KO, JASON Y

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/676,903
Filing Date: October 01, 2003
Appellant(s): MANI ET AL.

Tait R. Swanson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/8/09 appealing from the Office action mailed 6/2/08. The supplemental appeal brief of 8 May 2009 is acknowledged and has been accepted.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5887454	Renzacci	3-1999
6059845	Berndt et al.	5-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 7-9, 11, 12, 14, 70, 74, and 86 are rejected under 35 U.S.C. 102(b) as being anticipated by Renzacci (US Patent No. 5,887,454). Renzacci teaches a dry cleaning machine for linen and garments which includes a rotating drum 2 (agitation device) containing items to be washing, rotating inside a washing tank 1. The tank has an inlet pipe 8 (air inlet), outlet pipe 5 (air outlet), condenser 26 (condenser), and cooling unit 7 (evaporator). A solvent distiller 3 is adapted to recapture a portion of the cleaning fluid. Tank 26 reads on Appellant's claims for a cleaning solvent tank coupled to the laundry enclosure.

A drying air circulation system, generally indicated as 4, connects the air inlet 8 and outlet 5. Fan 6 reads on Appellant's claims for a blowing device. Renzacci teaches a heat exchanger 15 is installed in the drying air circuit downstream from preheating unit 19 (supplemental heating device) and cooling unit 7 (cooling device). A condensate

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return pipe 16 (condensate drain/fluid drain) connects the heat exchange to sump 1 la of the solvent distiller 3 (fluid recovery system). Pressure is controlled within this apparatus by a pressure sensing device 21 (pressure reducing mechanism) (col. 2, lines 33-36). Finally, as it appears illustrated, the laundry drum is side-loadable.

Renzacci, teaches both a condenser 26 (condenser) and cooling unit 7 (evaporator) which as illustrated in Figure 1, and connected via a closed loop process. The condenser 26 is connected to the pump 22 which delivers the solvent spray to the washing tank as denoted by arrow 23 (column 1, lines 62-67; column 2, lines 1-3). The cooling unit 7 is connected to the outlet of the washing tank as shown in Figure 1. As per the Renzacci reference the condenser 26 is a condenser and thus reads on claims wherein a condenser is configured to heat; the cooling unit 7 performs cooling functions and thus reads on claims wherein an evaporator is configured to cool.

Moreover, the condenser 26 (condenser) and cooling unit 7 (evaporator) are disposed in a loop formed between the air inlet and outlet of the washing machine.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13, 15, 71, and 75-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Renzacci.

Renzacci teaches a rotating drum 2 inside tank 1. It is at once envisaged by one of ordinary skill in the art at the time of the invention that the rotating drum is connected and moved rotatingly by a conventional rotating shaft.

Renzacci illustrates the washing machine to be side-loading, however, it is commonly known in the art to have such laundry machines as side- or top-loading. Choice in aesthetic designs was held to have been obvious. *St. Regis Paper Co. v. Beemis Co. Inc.* 193 USPQ 8, 11, (1977); *In re Harza* 124 USPQ 378 (CCPA 1960). Side- and top-loading laundry machines perform the same, except they merely provide a desired aesthetic; side-loading means may be desirable when little space is available for said machine and the washer and dryers are stacked on top of one another, on the corollary, a top-loading machine may be desirable when it is preferred by the user to remove clothes from the top, rather than from the side because in a side-loading machine the clothes may all tumble out when opened after a wash cycle or be harder to reach because the opening is too low to the ground. Top- and side-loading laundry machines are commonly interchangeable and known in the art; both these types of openings achieve equivalent washing functions.

Furthermore, Renzacci discloses heating and cooling the air within said apparatus, however, Renzacci does not recite specific drying temperatures or airflow rates. It would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize these features of Goldberg since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Optimizing air

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temperatures and airflow in a drying machine is merely a result effective variable and has no patentable significance because a known and expected drying result is produced.

Claims 6, 72, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Renzacci as applied to claims above, and further in view of Berndt et al. herein referred to as "Berndt" (US Patent No. 6,059,845).

Renzacci teaches a cleaning solvent is used to clean the laundry in its washing machine, however, Renzacci fails to recite what the cleaning solvent is comprised of. It would have been obvious to one of ordinary skill in the art at the time of the invention to use siloxane as a cleaning fluid in Renzacci, since siloxane is a commonly known and used dry cleaning solution used in laundering garments, linens, etc.

Berndt provides motivation for this teaching by disclosing a laundry processing apparatus which uses the solvent siloxane from either a working tank 14 or a new solvent tank 16. Berndt's disclosure of a working tank teaches the recapture and reuse of a cleaning solvent. Moreover, Renzacci reinforces the idea of recycling cleaning fluid by teaching the cleaning solution may be collected and re-used. It would have been obvious to one of ordinary skill in the art at the time of the invention to use siloxane in the laundry apparatus of Renzacci, as taught by the laundry apparatus of Berndt to be a known cleaning fluid in the art. Laundry machines are commonly known in the art to have cleaning fluid sources to clean items therein as desired; commonly known cleaning fluids are water, cleaning solvents, detergents, fabric softeners, etc.

(10) Response to Argument

Appellant argued that the prior art Renzacci fails to teach an evaporator configured to cool air downstream of the air outlet which is disposed in a closed fluid path a condenser configured to heat air upstream of the air inlet which is disposed in a closed fluid path.

However it is maintained that the prior art, Renzacci, teaches both a condenser 26 (condenser) and cooling unit 7 (evaporator) which as illustrated in Figure 1, and connected via a closed loop process. The condenser 26 is connected to the pump 22 which delivers the solvent spray to the washing tank as denoted by arrow 23 (column 1, lines 62-67; column 2, lines 1-3). The cooling unit 7 is connected to the outlet of the washing tank as shown in Figure 1. As per the Renzacci reference the condenser 26 is a condenser and thus reads on claims wherein a condenser is configured to heat; the cooling unit 7 performs cooling functions and thus reads on claims wherein an evaporator is configured to cool.

The cooling unit 7 has cooling coils and reads on the evaporator since evaporators are machines in the art to have either plates or coils for evaporating a medium therethrough. Although Renzacci does not call its cooling unit 7 an "evaporator", it still reads on Appellant's claims since it performs the same exact cooling functions in combination with the claimed condenser of the invention. Appellant fails to claim specific structural requirements of the evaporator which exclude cooling coils from reading on the claims.

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Moreover, the condenser 26 (condenser) and cooling unit 7 (evaporator) are disposed in a loop formed between the air inlet and outlet of the washing machine.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jason Y. Ko/

Patent Examiner, Art Unit 1792

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